

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



529379

(43) International Publication Date
15 April 2004 (15.04.2004)

PCT

(10) International Publication Number
WO 2004/031036 A1

(51) International Patent Classification⁷:**B65B 43/12**

(21) International Application Number:

PCT/EP2003/010754

(22) International Filing Date:

26 September 2003 (26.09.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

02256908.1 3 October 2002 (03.10.2002) EP

(71) Applicant (*for all designated States except US*): CRYOVAC, INC. [US/US]; 100 Rogers Bridge Road, Duncan, 29334 S.C. (US).

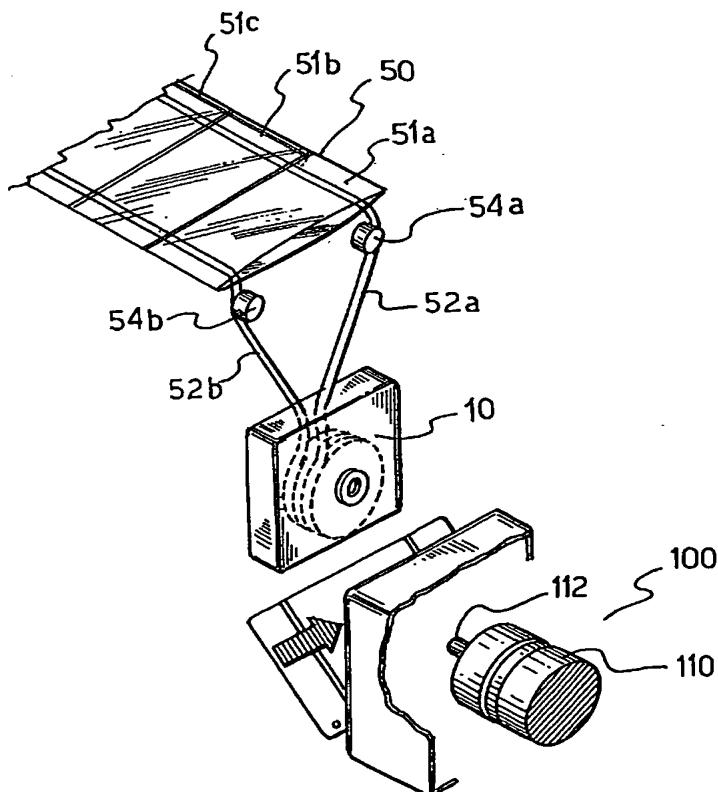
(72) Inventor; and

(75) Inventor/Applicant (*for US only*): PALUMBO, Riccardo [IT/IT]; Via Garelli 20, I-28041 Arona (IT).

(74) Agent: DE CARLI, Elda; Sealed Air S.r.l., Via Trento, 7, I-20017 Passirana Di Rho (IT).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).*[Continued on next page]*

(54) Title: APPARATUS AND METHOD FOR LOADING A BAG TRAIN



(57) Abstract: The preferred embodiment is an apparatus for taking up two carrier tapes (52a, 52b) of a bag train incorporating a succession of imbricated packaging bags (51a, 51b, 51c) that comprises two spools (12a, 12b), one for taking up each carrier tape and a differential gear unit (20) positioned between the spools. In use the apparatus is removably connected to the bag loader, e.g. by snap-on fitting, in a way that the differential gear unit is driven by a shaft (112) of the bag loader and rotates the spools to take up the respective supply tapes with equal tension. The spools are positioned coaxially in the apparatus. Also disclosed is a method of loading a bag chain on a bag loader using such an apparatus.